

Appl. No. 09/971,903

Amdt. dated September 22, 2004

Reply to Office Action of September 3, 2004

**PATENT**  
Docket: 000063**Remarks**

Claims 1-2, 4-16 and 18-41 were pending in the application. Claims 1, 38-39 are herein amended. Claim 6 is hereby canceled.

*Rejections under 35 U.S.C. §103(a)*

The Examiner has rejected claims 1-2, 4-15 and 38-39 under 35 U.S.C. §103(a) as being unpatentable over Ogawa et al. Pub. No. 2002/0024992 in view of Hutchison US Patent 5,790,589. Claims 1 and 38-39 have been amended and claim 6 has been canceled. For the reasons set forth below, it is respectfully submitted that these claims are patentable over the applied art.

The limitations of claim 6 have been incorporated into claim 1. Amended claim 1 contains the element "re-evaluating each detected peak to remove noise peaks and provide the one or more candidate peaks." This element is not taught or suggested in either Ogawa or Hutchison. The Examiner states, however, that the element is taught by Ogawa in elements 10-1 and 10-2 of fig. 2. The Examiner is mistaken. These elements in the Ogawa reference are merely peak detectors that initially detect the peaks. These elements would correspond to the element of amended claim 1 of "detecting peaks...to provide a set of detected peaks." There is no teaching of the "re-evaluating" element. To assist the Examiner, an example of the re-evaluation is discussed in the present application in paragraph [1068] and occurs in the "dwell stage", whereas the peak detection occurs in the "detect phase." As amended claim 1 contains an element not shown in the prior art, claim 1 should be allowable.

Claims 2, 4-5 and 7-15 are ultimately based upon claim 1 and should also be allowable as being based upon an allowable claim. Claims 38 and 39 contain similar language to the language added to claim 1 and should be allowable for the reasons discussed above.

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The Examiner has rejected claims 16 and 18-25 under 35 U.S.C. §103(a) as being unpatentable over Belotserkovsky US Patent 6,628,735 in view of Hutchison et al. US Patent 5,790,589. On page 8 of the Office Action, the Examiner describes the Hutchison reference as being Pub. No. 2002/0009064. However, this publication number refers to the Blessent reference, not the Hutchison reference. The discussion that follows assumes that the Examiner did mean to use the Hutchison reference in this rejection and not the Blessent reference. If the Examiner meant to use the Blessent reference and not the Hutchison reference, the rejection is improper as discussed with respect to claims 26, 27, 30-33, 36-37 and 40-41 elsewhere herein.

To establish a prima facie case of obviousness, there must be 1) some motivation to combine the reference teachings; 2) a reasonable expectation of success and 3) the combination must teach or suggest all the claim limitations. See MPEP 706.02(j). These references do not meet this test.

First, there is no motivation to combine the teachings and no reasonable expectation of success. Belotserkovsky is directed to an OFDM system. This is made clear in the Summary of the Invention in that reference. Col. 2, line 20, in col. 6 lines 32-37 ("The present invention is described as operating that conforms to ... wireless LAN standards ... However, it is considered within the skill of one skilled in the art to implement the teachings of the present invention in *other OFDM systems*." (emphasis added)), in col. 8 lines 27-54 ("Thus according to the principle of the present invention, there is provided a method of correcting a sampling frequency offset in an OFDM receiver....") and in *every one* of the independent claims. Nowhere in the reference does it mention that it could be implemented in another system.

Hutchison, on the other hand, discusses a CDMA system. See col. 1, line 13- col. 2 line 20, the Summary of the Invention in col. 3 lines 38-43 ("...In accordance with the present invention, the system is a code division multiple access (CDMA) system...") and most of the independent claims. As these references describe different technologies,

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combining them would not be obvious to one skilled in the art, as stated by the Examiner and no reasonable expectation of success would exist. Thus, claims 16 and 18-25 should be allowable.

Additionally, a combination of the Belotserkovsky reference and the Hutchison reference would not yield all the claim limitations with respect to at least some of the rejected claims. For instance, with respect to claim 19, the Examiner states that Fig. 5 of the Belotserkovsky reference shows that the reference would include pipelining the searching for different frequency bins. However, this figure merely shows the simultaneous processing for two frequency bins. To assist the Examiner in understanding the claimed pipelining element, the Examiner's attention is directed to an example in Fig. 8 of the present application and paragraphs [1080] through [1088]. Claim 19 should be allowable.

Similarly, with respect to claim 20, the Examiner points to Fig. 5 of Belotserkovsky and states that the reference would include searching for the next frequency bin in parallel with the processing of a current frequency bin. However, this figure merely shows the simultaneous processing of two frequency bins. To assist the Examiner in understanding the claimed "parallel" element, the Examiner's attention is directed to an example given in Fig. 8 of the present application and paragraphs [1080] through [1088]. Claim 20 should be allowable.

With respect to claim 21, the Examiner does not cite any support for the rejection – just a conclusory statement that Belotserkovsky would include re-evaluating the peaks found. This is an improper rejection. Nowhere in the reference is re-evaluation discussed or suggested. As with claims 1, 38 and 39, claim 21 should be allowable.

With respect to claim 24, the Examiner does not cite any support for the rejection – just a conclusory statement that Belotserkovsky would include frequency bins that

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overlap. This is an improper rejection that is refuted by Fig. 5 of the reference that clearly shows the bins not overlapping. This claim should be allowable.

With respect to claim 25, as with claim 19, nothing in either reference indicates the searching and processing are pipelined for different frequency bins. The Examiner has pointed to Belotserkovsky col. 7, lines 45-67. This merely shows that different frequency bins can be processed simultaneously. It does not discuss or suggest that a search of one frequency bin is occurring while processing for a different frequency bin is also occurring. This claim should be allowable.

The Examiner has rejected claims 26, 30-32, 36-37 and 40-41 under 35 U.S.C. §103(a) as being unpatentable over Ogawa et al. Pub. No. US2002/0024992 in view of Blessent et al. Pub. No. US2002/0009064. This rejection is respectfully traversed.

35 U.S.C. §103(c) states:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

The present application has a filing date of **October 4, 2001**, prior to the publication date of the Blessent reference (January 24, 2002). Thus, the Blessent reference can not qualify as prior art under 35 U.S.C. §102(a) or (b). Additionally, it is obvious from the face of the reference that it is not a 35 U.S.C. §102(c) or (d) reference. Thus, it may only be a reference under one or more of subsections (e), (f) and (g).

The Blessent reference and the present application were, at the time the invention covered by the present application was made, owned by, or subject to an obligation of

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assignment to the same person, namely Qualcomm. Both the Blessent reference and the present application have been so assigned and the present application was subject to such an assignment at the time of the invention. Thus, according to 35 U.S.C. §103(c) (and MPEP 706.02(1)(2)), the Blessent reference can not be used to preclude the patentability of the present application and is an improper reference and the rejection of claims 26, 30-32, 36-37 and 40-41 should be withdrawn.

The Examiner has rejected claims 27 and 33 under 35 U.S.C. §103(a) as being unpatentable over Ogawa et al. Pub. No. US2002/0024992 in view of Blessent et al. Pub. No. US2002/0009064 and Hutchison U.S. Patent 5,790,589. As discussed above, the Blessent reference is an improper reference. The rejection of claims 27 and 33 should be withdrawn.

The Examiner has rejected claims 28-29 and 34-35 under 35 U.S.C. §103(a) as being unpatentable over Ogawa et al. Pub. No. US2002/0024992 in view of Blessent et al. Pub. No. US2002/0009064 and Van Stralen U.S. Patent 6,621,855. As discussed above, the Blessent reference is an improper reference. The rejection of claims 28-29 and 34-35 should be withdrawn.

In view of the foregoing, reconsideration of the application and allowance of all claims is respectfully requested. The Examiner is invited to call the undersigned agent if a telephone call could help solve any remaining issues.

Respectfully submitted,

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By: 

Timothy F. Loomis  
Attorney for Applicant  
Registration No. 37,383

QUALCOMM Incorporated